IV. THE LABORATORY

A. HALL-KIMBRELL LABORATORY QUALITY CONTROL

Hall-Kimbrell maintains an in-house quality control program in addition to participating in the U.S. Environmental Protection Agency Bulk Sample Quality Assurance Program. Our in-house program consists of blind reanalysis of five percent of all samples. This reanalysis is done by a designated Quality Control Microscopist. In addition, the Quality Control Microscopist reanalyzes the samples that were originally reported between trace and five percent asbestos. There is also voluntary quality control reanalysis and mandatory source material dependent quality control reanalysis for sample types that are particularly difficult to analyze.

B. METHOD OF ANALYSIS

Analysis is performed by using the bulk sample for visual observation and slide preparation(s) for microscopical examination and identification. The slides are analyzed for asbestos (chrysotile, amosite, crocidolite, anthophyllite, and actinolite/tremolite), fibrous nonasbestos constituents (mineral wool, paper, etc.), and nonfibrous constituents. Asbestos is identified by refractive indices (obtained by using dispersion staining), morphology, color, pleochroism, birefringence, extinction characteristics, and signs of elongation. The same characteristics are used to identify the nonasbestos constituents. The microscopist visually estimates relative amounts of each constituent using the aid of a stereoscope if necessary. Quantity is reported as a volume percent of the whole sample.

C. PETROGRAPHIC RESULTS

The petrographic results of each sample analyzed are included in Appendix B of this report. The analysis indicates whether the material was visually homogeneous, whether asbestos was present or absent, the percent of each type of asbestos and other material components within the sample, and sample and report number references. Since some building materials, especially mechanical insulations, contain more than one type of asbestos, the various types are indicated within the appropriate section of the petrographic form. Material components listed in the section of the form called "other" include binders, fillers, and other nonasbestos materials.